





# HYS-38CIP sequence listing

gcgacggccc	ttgagagttc	gctcctgtgg	tcgtcgttcc	tccccgaagt	gttcacaacg	120
tcaccggggc	gcaggtgggc	ctgtcctgtg	aagtgagggc	tgtgcctacc	ccagtcatca	180
cgtggagaaa	ggtcacgaag	tcctctgagg	gcacccaagc	actggaggag	ctgcctgggg	240
accatgtcaa	tatagctgtc	caagtgcgag	ggggcccttc	tgaccatgag	gccacggcct	300
ggattttgat	caacccctg	cgaaaggagg	atgaggggtg	gtaccagtgc	catgcagcca	360
acatggtggg	agagg					375

<210> 4

<211> 1250

<212> DNA

<213> Homo sapiens

<400> 4

gggcgggagc	ggtgactgct	cggcgggagc	ggagcggagc	gcgaagcaga	ggcgccgccc	60
ctgtcccga	gcaagccatg	ccgcgcttgt	ctctgctctt	gccgctgctg	cttctgctgc	120
tgctgccgct	gctgccgccc	ctgtccccga	gccttgggat	ccgcgacgtg	ggcggtcggc	180
gccccaaagt	tggtccgtgc	cgccagagg	gctgcccggc	gcctgcgccc	tgcccggcgc	240
ccgggatctc	ggcgctcgac	gagtgcggct	gctgcgccc	ctgcctggga	gccgagggcg	300
cgagctgcgg	gggcccgcgc	ggcgggcgct	gtggccccgg	cctggtatgc	gcgagccagg	360
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gcggctccga	cggtcgctcg	tacccagcg	tctgcgcgct	gcgcctgcgc	gctcggcaca	480
cgccccgcgc	gcaccccggt	cacctgcaca	aggcgcgcga	cgccccttgc	gagttcggtc	540
ctatcactcg	tttttataac	tgctttcctc	agccgttaat	tcacaggcaa	ttctctttgt	600
ctccagacag	gagacagagt	gagaccctgt	ctaaaaagaa	gaagaagaag	gaggaggagg	660
aggaggagga	ggaggagggg	gaggaggaga	aggaagaaga	aggatgcaa	agcaatttcc	720
aacacaccat	taactttaaa	gaaatctcag	agggatttgg	gaagattttt	tcattccagc	780
catcaatgat	cgatataatt	gacgaggcct	ctacactgca	cgttgcccga	cacgctgtgg	840
tgctggatgc	caggggtggc	gagttgctgt	ccaatgcagc	tcctgtggtc	gtcgttcctc	900
cccgaagtgt	tcacaacgtc	accggggcgc	aggtgggcct	gtcctgtgaa	gtgaggggctg	960
tgcttcccc	agtcatcacg	tgagaaaagg	tcacgaagtc	ccctgagggc	acccaagcac	1020
tgagggagct	gcctggggac	catgtcaata	tagctgtcca	agtgcgaggg	ggcccttctg	1080
accatgaggg	cacggcctgg	atgttggtgt	cagacctgca	tcattgtctg	aaggctctcc	1140
ccacctactc	ctactccagc	accctttctc	cttcacaggt	gtttctccta	atacatctct	1200

# HYS-38CIP sequence listing

tgcacattgg accctatcct ggtgcctgca tcttgagggc cccaccctag 1250

<210> 5  
<211> 1009  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> (79)..(915)  
<223>

<400> 5  
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gctgtcccgg agcaagcc atg ccg cgc ttg tct ctg ctc ttg ccg ctg ctg 111  
Met Pro Arg Leu Ser Leu Leu Pro Leu Leu  
1 5 10  
ctt ctg ctg ctg ctg ccg ctg ctg ccg ccg ctg tcc ccg agc ctc ggg 159  
Leu Leu Leu Leu Leu Pro Leu Leu Pro Pro Leu Ser Pro Ser Leu Gly  
15 20 25  
atc cgc gac gtg ggc ggc cgg cgc ccc aag tgt ggt ccg tgc cgg cca 207  
Ile Arg Asp Val Gly Gly Arg Arg Pro Lys Cys Gly Pro Cys Arg Pro  
30 35 40  
gag ggc tgc ccg gcg cct gcg ccc tgc ccg gcg ccc ggg atc tgc gcg 255  
Glu Gly Cys Pro Ala Pro Pro Cys Pro Ala Pro Gly Ile Ser Ala  
45 50 55  
ctc gac gag tgc ggc tgc tgc gcc cgc tgc ctg gga gcc gag ggc gcg 303  
Leu Asp Glu Cys Gly Cys Cys Ala Arg Cys Gly Ala Glu Gly Ala  
60 65 70 75  
agc tgc ggg ggc cgc gcc ggc ggc cgc tgt ggc ccc ggc ctg gta tgc 351  
Ser Cys Gly Gly Arg Ala Gly Gly Arg Cys Gly Pro Gly Leu Val Cys  
80 85 90  
gcg agc cag gcc gct ggg gca gcg ccc gag ggc acc ggg ctc tgc gtg 399  
Ala Ser Gln Ala Ala Gly Ala Ala Pro Glu Gly Thr Gly Leu Cys Val  
95 100 105  
tgc gcg cag cgc ggc acc gtc tgc ggc tcc gac ggt cgc tgc tac ccc 447  
Cys Ala Gln Arg Gly Thr Val Cys Gly Ser Asp Gly Arg Ser Tyr Pro  
110 115 120  
agc gtc tgc gcg ctg cgc ctg cgc gct cgg cac acg ccc cgc gcg cac 495  
Ser Val Cys Ala Leu Arg Leu Arg Ala Arg His Thr Pro Arg Ala His  
125 130 135

[illegible]

<211> 278

<212> PRT

<213> Homo sapiens

**<400>    6**

Met Pro Arg Leu Ser Leu Leu Leu Pro Leu Leu Leu Leu Leu Leu  
1 5 10 15

Pro Leu Leu Pro Pro Leu Ser Pro Ser Leu Gly Ile Arg Asp Val Gly  
20 25 30

Gly Arg Arg Pro Lys Cys Gly Pro Cys Arg Pro Glu Gly Cys Pro Ala  
35 40 45

# HYS-38CIP sequence listing

Pro Ala Pro Cys Pro Ala Pro Gly Ile Ser Ala Leu Asp Glu Cys Gly  
50 55 60

Cys Cys Ala Arg Cys Leu Gly Ala Glu Gly Ala Ser Cys Gly Gly Arg  
65 70 75 80

Ala Gly Gly Arg Cys Gly Pro Gly Leu Val Cys Ala Ser Gln Ala Ala  
85 90 95

Gly Ala Ala Pro Glu Gly Thr Gly Leu Cys Val Cys Ala Gln Arg Gly  
100 105 110

Thr Val Cys Gly Ser Asp Gly Arg Ser Tyr Pro Ser Val Cys Ala Leu  
115 120 125

Arg Leu Arg Ala Arg His Thr Pro Arg Ala His Pro Gly His Leu His  
130 135 140

Lys Ala Arg Asp Gly Pro Cys Glu Phe Ala Pro Val Val Val Val Pro  
145 150 155 160

Pro Arg Ser Val His Asn Val Thr Gly Ala Gln Val Gly Leu Ser Cys  
165 170 175

Glu Val Arg Ala Val Pro Thr Pro Val Ile Thr Trp Arg Lys Val Thr  
180 185 190

Lys Ser Pro Glu Gly Thr Gln Ala Leu Glu Glu Leu Pro Gly Asp His  
195 200 205

Val Asn Ile Ala Val Gln Val Arg Gly Gly Pro Ser Asp His Glu Ala  
210 215 220

Thr Ala Trp Ile Leu Ile Asn Pro Leu Arg Lys Glu Asp Glu Gly Val  
225 230 235 240

Tyr Gln Cys His Ala Ala Asn Met Val Gly Glu Ala Glu Ser His Ser  
245 250 255

Thr Val Thr Val Leu Asp Leu Ser Lys Tyr Arg Ser Phe His Phe Pro  
260 265 270

Ala Pro Asp Asp Arg Met  
275

<210> 7



# HYS-38CIP sequence listing

<400> 9

Met Pro Arg Leu Ser Leu Leu Leu Pro Leu Leu Leu Leu Leu Leu Leu  
1 5 10 15

Pro Leu Leu Pro Pro Leu Ser Pro Ser Leu Gly  
20 25

<210> 10

<211> 251

<212> PRT

<213> Homo sapiens

<400> 10

Ile Arg Asp Val Gly Gly Arg Arg Pro Lys Cys Gly Pro Cys Arg Pro  
1 5 10 15

Glu Gly Cys Pro Ala Pro Ala Pro Cys Pro Ala Pro Gly Ile Ser Ala  
20 25 30

Leu Asp Glu Cys Gly Cys Cys Ala Arg Cys Leu Gly Ala Glu Gly Ala  
35 40 45

Ser Cys Gly Gly Arg Ala Gly Gly Arg Cys Gly Pro Gly Leu Val Cys  
50 55 60

Ala Ser Gln Ala Ala Gly Ala Ala Pro Glu Gly Thr Gly Leu Cys Val  
65 70 75 80

Cys Ala Gln Arg Gly Thr Val Cys Gly Ser Asp Gly Arg Ser Tyr Pro  
85 90 95

Ser Val Cys Ala Leu Arg Leu Arg Ala Arg His Thr Pro Arg Ala His  
100 105 110

Pro Gly His Leu His Lys Ala Arg Asp Gly Pro Cys Glu Phe Ala Pro  
115 120 125

Val Val Val Val Pro Pro Arg Ser Val His Asn Val Thr Gly Ala Gln  
130 135 140

Val Gly Leu Ser Cys Glu Val Arg Ala Val Pro Thr Pro Val Ile Thr  
145 150 155 160





# HYS-38CIP sequence listing

<210> 12

<211> 390

<212> PRT

<213> Homo sapiens

<400> 12

Met Pro Arg Leu Ser Leu Leu Leu Pro Leu Leu Leu Leu Leu Leu  
1 5 10 15

Pro Leu Leu Pro Pro Leu Ser Pro Ser Leu Gly Ile Arg Asp Val Gly  
20 25 30

Gly Arg Arg Pro Lys Cys Gly Pro Cys Arg Pro Glu Gly Cys Pro Ala  
35 40 45

Pro Ala Pro Cys Pro Ala Pro Gly Ile Ser Ala Leu Asp Glu Cys Gly  
50 55 60

Cys Cys Ala Arg Cys Leu Gly Ala Glu Gly Ala Ser Cys Gly Gly Arg  
65 70 75 80

Ala Gly Gly Arg Cys Gly Pro Gly Leu Val Cys Ala Ser Gln Ala Ala  
85 90 95

Gly Ala Ala Pro Glu Gly Thr Gly Leu Cys Val Cys Ala Gln Arg Gly  
100 105 110

Thr Val Cys Gly Ser Asp Gly Arg Ser Tyr Pro Ser Val Cys Ala Leu  
115 120 125

Arg Leu Arg Ala Arg His Thr Pro Arg Ala His Pro Gly His Leu His  
130 135 140

Lys Ala Arg Asp Gly Pro Cys Glu Phe Val Pro Ile Thr Arg Phe Tyr  
145 150 155 160

Asn Cys Phe Pro Gln Pro Leu Ile His Arg Gln Phe Ser Leu Ser Pro  
165 170 175

Asp Arg Arg Gln Ser Glu Thr Leu Ser Lys Lys Lys Lys Lys Lys Glu  
180 185 190

Glu Glu Glu Glu Glu Glu Glu Glu Gly Glu Glu Glu Lys Glu Glu Glu  
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# HYS-38CIP sequence listing

Met Pro Arg Leu Pro Leu Leu Leu Leu Leu Leu Leu Pro Ser Leu Ala Arg  
 1 5 10 15  
 Gly Leu Gly Leu Arg Asp Ala Gly Arg Arg His Pro Glu Cys Ser Pro  
 20 25 30  
 Cys Gln Gln Asp Arg Cys Pro Ala Pro Ser Pro Cys Pro Ala Pro Trp  
 35 40 45  
 Ile Ser Ala Arg Asp Glu Cys Gly Cys Cys Ala Arg Cys Leu Gly Ala  
 50 55 60  
 Glu Gly Ala Ser Cys Gly Gly Pro Val Gly Ser Arg Cys Gly Pro Gly  
 65 70 75 80  
 Leu Val Cys Ala Ser Arg Ala Ser Gly Thr Ala Pro Glu Gly Thr Gly  
 85 90 95  
 Leu Cys Val Cys Ala Gln Arg Gly Ala Val Cys Gly Ser Asp Gly Arg  
 100 105 110  
 Ser Tyr Ser Ser Ile Cys Ala Leu Arg Leu Arg Ala Arg His Ala Pro  
 115 120 125  
 Arg Ala His His Gly His Leu His Lys Ala Arg Asp Gly Pro Cys Glu  
 130 135 140  
 Phe Ala Pro Val Val Leu Met Pro Pro Arg Asp Ile His Asn Val Thr  
 145 150 155 160  
 Gly Thr Gln Val Phe Leu Ser Cys Glu Val Lys Ala Val Pro Thr Pro  
 165 170 175  
 Val Ile Thr Trp Lys Lys Val Lys His Ser Pro Glu Gly Thr Glu Gly  
 180 185 190  
 Leu Glu Glu Leu Pro Gly Asp His Val Asn Ile Ala Val Gln Val Arg  
 195 200 205  
 Gly Gly Pro Ser Asp His Glu Thr Thr Ser Trp Ile Leu Ile Asn Pro  
 210 215 220  
 Leu Arg Lys Glu Asp Glu Gly Val Tyr His Cys His Ala Ala Asn Ala  
 225 230 235 240  
 Ile Gly Glu Ala Gln Ser His Gly Thr Val Thr Val Leu Asp Leu Asn  
 245 250 255

# HYS-38CIP sequence listing

Arg Tyr Lys Ser Leu Tyr Ser Ser Val Pro Gly Asp  
260 265

<210> 14

<211> 264

<212> PRT

<213> Homo sapiens

<400> 14

Pro Ser Leu Arg Ala Leu Leu Leu Gly Ala Ala Gly Leu Leu Leu Leu  
1 5 10 15

Leu Leu Pro Leu Ser Ser Ser Ser Ser Ser Asp Thr Cys Gly Pro Cys  
20 25 30

Glu Pro Ala Ser Cys Pro Pro Leu Pro Pro Leu Gly Cys Leu Leu Gly  
35 40 45

Glu Thr Arg Asp Ala Cys Gly Cys Cys Pro Met Cys Ala Arg Gly Glu  
50 55 60

Gly Glu Pro Cys Gly Gly Gly Gly Ala Gly Arg Gly Tyr Cys Ala Pro  
65 70 75 80

Gly Met Glu Cys Val Lys Ser Arg Lys Arg Arg Lys Gly Lys Ala Gly  
85 90 95

Ala Ala Ala Gly Gly Pro Gly Val Ser Gly Val Cys Val Cys Lys Ser  
100 105 110

Arg Tyr Pro Val Cys Gly Ser Asp Gly Thr Thr Tyr Pro Ser Gly Cys  
115 120 125

Gln Leu Arg Ala Ala Ser Gln Arg Ala Glu Ser Arg Gly Glu Lys Ala  
130 135 140

Ile Thr Gln Val Ser Lys Gly Thr Cys Glu Gln Gly Pro Ser Ile Val  
145 150 155 160

Thr Pro Pro Lys Asp Ile Trp Asn Val Thr Gly Ala Gln Val Tyr Leu  
165 170 175

Ser Cys Glu Val Ile Gly Ile Pro Thr Pro Val Leu Ile Trp Asn Lys  
180 185 190

HYS-38CIP sequence listing

Val Lys Arg Gly His Tyr Gly Val Gln Arg Thr Glu Leu Leu Pro Gly  
195 200 205

Asp Arg Asp Asn Leu Ala Ile Gln Thr Arg Gly Gly Pro Glu Lys His  
210 215 220

Glu Val Thr Gly Trp Val Leu Val Ser Pro Leu Ser Lys Glu Asp Ala  
225 230 235 240

Gly Glu Tyr Glu Cys His Ala Ser Asn Phe Gln Gly Gln Ala Ser Ala  
245 250 255

Ser Ala Lys Ile Thr Val Val Asp  
260